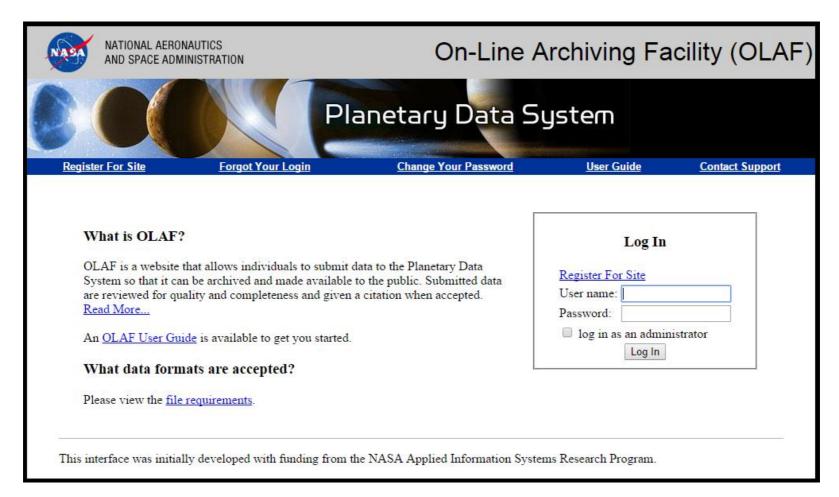
# On-Line Archiving Facility (OLAF)



#### OLAF – What Does It Do?

- Allows data providers (and sometimes node staff) to assemble data and documentation into a PDS archive volume ready for review and archiving.
- No need to understand PDS standards, user just enters information and metadata into a web form, uploads data files, and OLAF creates the labels and assembles the volume.
- Currently limited to data set size of ~5 Gb, but can be used to create a template for larger data sets.
- Originally designed for groundbased asteroid and comet data, but can also be used for mission data. Examples: LADEE, Hayabusa, Cassini, Ulysses, Galileo, IRAS, MSX.

#### OLAF – What Does It Do?

- Supports FITS images, general ASCII tables, and specialized ASCII tables including spectra, time-series, and shape models.
- Ancillary tool FITS Normalizer allows user to do batch editing on FITS data to make it compliant with PDS standards and OLAF requirements.
- By allowing external data providers to prepare their own PDS volumes ready for review, this tool allows us to archive a vastly greater number of data sets than would otherwise be possible at our current level of funding and effort.
- OLAF has been in active use for PDS3 data since 2003. It
  has produced 198 archived PDS3 data sets, plus LADEE LDEX
  which was migrated to PDS4 using the migration portion of
  the currently in-developement PDS4 OLAF.

### OLAF – Where Is It Going?

- PDS4 OLAF is currently in development. It is intended to do everything PDS3 OLAF does, but with output in PDS4. PDS4 OLAF is planned to be completed in late 2015.
- OLAF PDS3 to PDS4 migration software has been created which will serve as the output side of PDS4 OLAF and which has been used to create the PDS4 LADEE LDEX bundle for review and archiving, as well as test migration for selected OLAF-created data sets. This migration software will also be used for migration of all OLAF-created PDS3 data sets in the archive.
- User interface side of PDS4 OLAF is in development.

### OLAF – Where Is It Going?

- FITS Normalizer acts on FITS files to correct them for uploading into OLAF, so it is not affected by PDS3/PDS4 transition.
- Extend for PDS-wide use? PDS3 OLAF is already available for PDS-wide use, as it is an on-line web tool. PDS4 OLAF will be as well. Several years ago, SBN sent representatives to the other nodes to provide workshops in the use of OLAF, but other nodes either already have their own tools, or have not found OLAF to be suited to the types of data they archive.
- If there is interest, we are open to discussion about enhancements to OLAF which would make it useful for other nodes.

### NEO Surveys Browser



About FAQ Support/Feedback

Search

#### **Small Bodies NEAT Browser**

The NEAT browser is a tool that allows searchable access to NEAT image data archived at SBN. Use the links below to access the data.

Find Data By Target Name

Planetary Data System Small Bodies Node



# NEO Surveys Browser – What Does It Do?

- NEO Surveys Browser (currently the NEAT Browser) provides search capability to data users for the NEO surveys data.
- NEO Surveys such as NEAT, Spacewatch, Catalina Sky Survey, and LONEOS have produced hundreds of terabytes of images of the sky to search for and discover new asteroids. These extremely valuable data sets will be lost to science if we don't archive them into PDS. We have started with the NEAT Survey and will archive as many of them as possible.
- These very large data sets are useless without a search capability to find relevant images containing a specified target object.

# NEO Surveys Browser – What Does It Do?

- NEAT Browser takes as input the name of the known target.
   It uses the MOST facility of IRSA which uses the orbit of the
   object and a list of the coordinates of the NEAT images to
   calculate which images may contain the object. It then
   offers the user the option to download the images.
- Using the search tool, users of the NEO survey data can quickly find and download the data they need.
- The NEAT Browser was released in 2013 and is currently serving the NEAT archive.

# NEO Surveys Browser – Where Is It Going?

- The NEAT Browser will be easily expanded to include other NEO survey data. All that is needed is a table of the celestial coordinates of each survey image, which is archived with the data. The expanded tool will be called the NEO Search Tool.
- The search tool currently relies on an external facility, MOST.
   In the future we would like to convert to a fully in-house tool.
- The search tool does not care if the images it serves are PDS3 or PDS4, so it does not need to be updated for PDS4.
- Expansion to PDS-wide? No, the NEO Surveys Browser is applicable only to the NEO surveys.

### Small Bodies Data Ferret



About FAQ Support/Feedback

Search Data Sets

#### **Small Bodies Data Ferret**

The Ferret is a tool that allows searchable access to all the Small Bodies Node asteroid, comet, and satellite data sets. Use the links below to access the data.

Find Data By Target Name List All Datasets

About FAQ Support/Feedback Acknowledgment

Planetary Data System - Small Bodies Node



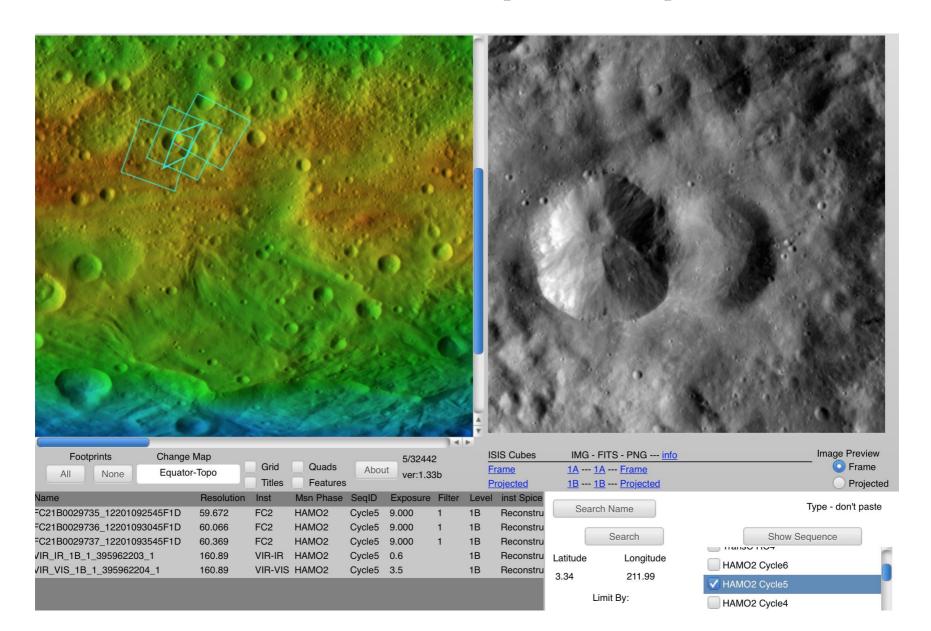
#### Data Ferret - What Does It Do?

- The Small Bodies Data Ferret is a tool for data users to search the holdings of the small body archive.
- The Ferret currently is capable of searching the archive on target name. This is important because of the large number of small bodies targets, including scores of planetary satellites, hundreds of comets, and hundreds of thousands of asteroids. The Ferret also allows browsing by data set, with the data sets organized by target type.
- The Ferret includes all SBN holdings on comets, asteroids, planetary satellites, and planets, except for large mission image data sets such as Dawn/Vesta, NEAR/Eros, Hayabusa/Itokawa, etc. These are or will be served by the Small Bodies Image Browser.
- The Ferret provides product level and record level results, gives links to the documentation and metadata, and provides the option of download.

# Data Ferret – Where Is It Going?

- The Ferret provides target and data set search capability. It is intended to expand it in the future to provide advanced query based search capability.
- The Ferret is currently capable of searching and serving PDS3 data holdings. The transition to PDS4 will require that the Ferret be updated to search and serve PDS4 data.
- Expansion to PDS-wide? No, the Ferret is designed specifically for the diversity of small body data and is not applicable to other nodes' data holdings.

## Small Bodies Image Browser(SBIB)



#### SBIB - What Does It Do?

Graphically search through the large number of images quickly

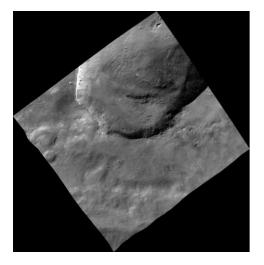
Search by coordinates

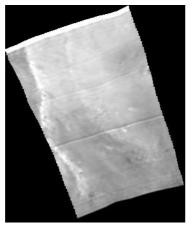
Show an entire sequence

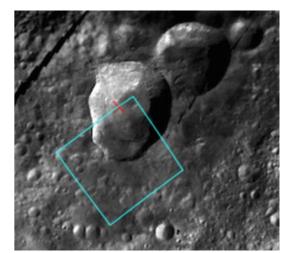
Display image data

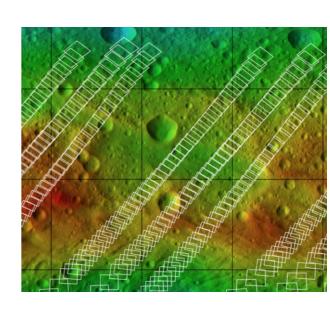
Draw image footprint on the map

Show thumbnails (camera orprojected)









### SBIB - What Does It Do?

#### Download raw or processed images:

```
IMG (mission format)
```

**FITS** 

ISIS frame

ISIS map projected (for cubeview or ArcMap 10.1)

PNG frame

PNG map projected

ENVI Cubes (VIR )		Framing Camera	
ISIS Cubes	IMG - FITS - PNG info		Image Preview
<u>Frame</u>	<u>1A 1A Frame</u>		OFrame
<u>Projected</u>	<u>1B</u> <u>1B</u> <u>Projected</u>		Projected
		VIR	
ISIS Cubes	ENVI PNG info		Image Preview
<u>Frame</u>	<u>Header</u> <u>Frame</u>		Frame
<u>Projected</u>	Full Projected		Projected

## SBIB - Where Is It Going?

Adding these over the next few years

Eros – In progress

Ceres - Post mission

Tempel 1

Itokawa

Comet Wild 2

Churymov-Gerasimenko